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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/735,143 10/28/96 APPLE

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| EXAMINER |
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WM02/0522

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| BLACKMAN, A |
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BOSTON, MA 02110

ART UNIT

PAPER NUMBER

2672

DATE MAILED:

05/22/01

J9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

|                              |  |                                    |
|------------------------------|--|------------------------------------|
| <b>Office Action Summary</b> | Application No.<br><b>08/736,143</b>   | Applicant(s)<br><b>Apple et al</b> |
|                              | Examiner<br><b>ANTHONY J. BLACKMAN</b> | Art Unit<br><b>2672</b>            |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)  Responsive to communication(s) filed on Mar 5, 2001

2a)  This action is FINAL.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4)  Claim(s) 1-38 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-38 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15)  Notice of References Cited (PTO-892)  
 16)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

18)  Interview Summary (PTO-413) Paper No(s). 19  
 19)  Notice of Informal Patent Application (PTO-152)  
 20)  Other: \_\_\_\_\_

Art Unit: 2672

This Office Action Is Final

## **DETAILED ACTION**

### **Response to Arguments**

1. Examiner acknowledges the interview with applicant's representatives; Denis G. Maloney, Christopher Centurelli, and Jim Wymard 3/29/2001, the supplied information provided a better understanding of the instant application, however the recited claims still do not overcome cited prior art. Examiner interprets the main reference of Marshall, with secondary references Risberg et al, Lauer et al, and Knee et al overcoming the recited claims in their entirety. Examiner has included Response to Arguments of the prior office action (paper number 16) with additional comments for Amendment E, paper number 18. Marshall teaches a virtual reality generator capable of receiving financial information. The virtual reality generator outputs to a display device. The financial information can be received from a data file. (Please see abstract). There are four main points that provides links from Marshall to the secondary references. They are as follows;

(I) The virtual reality world is displayed using sophisticated output devices, such as high resolution screens (see column 1, lines 10-20). This disclosure opens the door for other display devices to utilize the teachings of Marshall's corporate logo including various financial indicators along with the selection of Tokyo and New York stock markets in the virtual reality world where the corporate logo is literally textured on the top or on the side of the polygon (the polygon is equated to the stock's various financial indicators (See column 6, lines 5-43), for example, the ticker display

Art Unit: 2672

This Office Action Is Final

of Risberg et al disclosing various financial instruments and tickers showing trade data (see abstract, lines 17-27).

(II) Marshall teaches stock and commodity brokers and foreign exchange traders that receive continuous streams of data via communications links from financial trading groups, such as Reuters and Dow Jones as (see column 2, lines 57-60). Marshall implicitly alludes to the means of a ticker display (sophisticated output device) for at least financial data (continuous streams of financial data).

(III) The selection and interpretation of the Tokyo and New York stock markets suggest some form of sophisticated output device as a means to display the financial and stock market information (see column 6, lines 10-17). Further, combining the various financial data, continuous financial data streams, polygon with juxtaposed corporate logo with various financial indicators within a sophisticated output device, such as Risberg et al's ticker device which is capable of receiving/displaying real-time data, the main concept of the instant application is met. Admittedly, the merits of the office action rest upon the links/motivations between firstly, Marshall and Risberg et al. In conclusion, Marshall teaches the following: *utilization of a sophisticated output device*; known reception of continuous streams of financial data from Reuters and Dow Jones; the selection and interpretation of Tokyo and New York stock markets in a virtual reality engine; and the polygon containing various means to express financial indications juxtaposed with a corporate logo. The corporate logo, though not the same as a company symbol as disclosed during the noted interview, is not recited in the claim language. Furthermore, Marshall and Risberg et al share similar means of

Art Unit: 2672

This Office Action Is Final

content, i.e., continuous streams of financial data displayed upon sophisticated output devices.

Finally, a video wall display of Lauer et al is related to the same display environment of Risberg et al as a sophisticated output device.

Regarding applicants Remarks of paper number 18, please refer to examiner's response of paper number 16. Examiner will now respond to claims with substantially different/new matter.

Regarding claim 14, Risberg et al disclose the means of voice designation (see column 2, lines 15-25).

Claim 15 recites amended claim language wherein "...a data structure associating the extracted financial instrument identifiers..." has been disclosed by Marshall (see column 4, lines 48-67, column 5, lines 39-60, column 12, lines 16-57); "... a plurality of individual monitors arranged into a composite display to receive the first and second display signals and display the financial data..." (See column 4, lines 28-39 and column 8, lines 22-37 of Marshall discloses utilization of three modules which perform the means of receiving and displaying said financial data from a first and second display signals).

The examiner has disclosed the prior office action.

The examiner agrees with applicant that claims 18 and 20 overcome the previous office action.

However, examiner respectfully disagrees with applicant's assertion that the remaining claims as amended are patentably distinct over the cited references regarding the following issues; (a) from page 7 (at the bottom of the page, not the top of the page which is designated as 6) of paper No. 15,

Art Unit: 2672

This Office Action Is Final

"There is no teaching of a database to store graphic symbols that represent entities whose financial instruments are identified by instrument identifiers in the feed." Please refer to Marshall US Patent No. 5,675,746, Id. at column 4, lines 48-67, column 5, lines 39-60, and column 12, lines 16-57 which explain the relationship between the database and associated financial data. For example, Marshall cites the knowledge and the utilization of a database of financial information, such as CAPRI which receives input real-time, financial data from on-line services such as Reuters' ...in the form of "raw" financial data and later stores financial information for later analysis. (b) from page 7 of Paper No. 15, applicant feels that the motivation to combine Risberg to Marshall is in error because Marshall does not suggest association of a corporate logo with a value associated with the financial instrument. Please refer to Marshall column 6, lines 20-50, where Marshall relates a company's corporate logo textured on top of or on the side of a polygon. The

polygon in turn, is associated with various financial data by manipulating various aspects of the polygon's scale, color, shape, position, animation and textures (noted specifically at column 6, lines 41-43) which may be fed from several incoming data streams (used as a source of the financial information for one virtual reality world (column 6, lines 44-45). Examiner notes texturing the logo upon the polygon is equivalent to juxtaposing the logo with real-time financial data. Applicant admits that Risberg discloses a conventional ticker display. Marshall and Risberg share the platform of analogous art, through at least their association with at least Reuters and associated financial, stock,

Art Unit: 2672

This Office Action Is Final

and market data, along with streams of trade data (Risberg, column 1, lines 60-68). Additionally, Marshall discloses examples of Reuters and Knight-Ridden Inc. utilizing digital data servers (column 2, lines 55-67) as further reasoning to link Risberg et al's association with data link and financial data, and ticker display illustrated in figure 1, as well as figure 8, which illustrates the means of information extraction, storage, updating, and the rendering of the updated object.

© from page 8 of Paper No. 15, applicant submits that the motivation to combine the means of Lauer et al's wall size display is improper because there is no basis for considering that the virtual reality function of Marshall is useful with a wall size monitor as disclosed in Lauer et al. Examiner respectfully disagrees because it would have been obvious for one at the time of the invention to combine the modified device of Marshall and Risberg. Marshall discloses that "the virtual reality world is displayed using sophisticated output devices, such as high resolution color scenes..." (identified at column 1, lines 15-20) with the secondary reference of Lauer et al's modular

displays/large screen displays are considered as analogous art to applicant's "video wall". Additionally, Risberg et al disclose the means of tickers showing trade data (abstract, lines 17-27). Examiner's utilization of a large screen display as analogous art to the applicant's "video wall" is merely a supplement to applicant's instant invention as a sophisticated output device. Therefore examiner maintains rejection over claim 1 because the main reference of Marshall utilizes secondary references of Risberg et al and Lauer et al to highlight information regarded as well-known in the art.

Art Unit: 2672

This Office Action Is Final

(d) from page 8 of Paper No. 15, applicant submits that claim 3, which recites that the values include the current trading price of stocks, is not suggested by the base reference of Marshall. Examiner respectfully disagrees. Marshall discloses various examples illustrating that it is well-known in the financial market place to monitor real-time incoming data using complex graphical models (column 2, lines 45-47), followed by "Financial trading groups... receive continuous streams of data via communication links information providers such as Reuters and Dow Jones" (column 2, lines 5760). Marshall explicitly discloses utilization of "An input module (that) continuously receives a stream of financial information" (column 4, lines 29-30).

(e) from page 8 of Paper No. 15, applicant submits that claim 4, which recites that the graphic symbols include corporate logos for companies issuing stocks, is not suggested by Marshall or the combination of references. Marshall's utilization of the company logo textured (juxtaposed) upon polygons, where the polygons represent associations with various forms of financial data, clearly

suggests a case for obviousness that the financial data may be utilized for the purpose of issuing stocks.

(f) from page 9 of Paper No. 15, applicant submits that claim 5, which recites that there is no suggestion of a control system that processes the display signal to produce a moving ticker display of corporate logos and values of trades and stocks, is not suggested by Marshall or the combination of references. Please refer to Response to Arguments, sections (c), and (d).

Art Unit: 2672

This Office Action Is Final

(g) from page 9 of Paper No. 15, applicant submits that claims 6-14, specifically, claim 9, recites that the display signals are fed to the individual monitors to render a different graphic symbol and associated financial data on each of the monitors. The secondary reference of Lauer et al to the modified device of Marshall discloses that " because of its internal processing capability, each module is equipped to take data and either convert it into real pixels for presenting a portion of the image to be displayed or permit routing of data to other modules." (column 3, line 61 to column 4, line 5). Furthermore, Lauer et al teach prior art of passive modular displays that paint a full image across the entire display (column 6, lines 6-47). It would be obvious to one at the time of the invention that Lauer et al's utilization of modular displays overcomes the amendment of the recited claim 9.

(h) from page 9 of Paper No. 15, applicant submits that claims 15 and 16 are patentably distinct over the references because they do not describe or suggest "...graphic symbols being publicly acknowledged identifiers of entities whose financial instruments are identified by instrument identifiers in the feed." This added limitation is merely a re-written account of a previously recited limitation that has already been overcome by the combination of references. Please refer to section (a).

(1) from page 9 of Paper No. 15, applicant has amended the claim by adding "...juxtaposed... real-time textual data" asserting, once again that the combination of references with Marshall, Risberg et al along with Lauer et al do not overcome the amended recited claim of 17. Examiner respectfully disagrees. Examiner has properly explained reasoning for motivation of the three references in sections (b) and (c). The art holds and is on point regardless of the format of the display. Well-known

Art Unit: 2672

This Office Action Is Final

ticker display technology juxtaposes company/corporate symbols with financial/ stock/market data. For example, Risberg et al discloses this feature in Figure 1, element 18. Marshall, taken alone discloses the company logo textured (juxtaposed) upon (financial/stock/market) the polygon, as well as a database that is linked with the financial data including real-time textual data associated with financial instrument identifiers in the feed real-time data feed (column 5, lines 18-20, 33-36, 39-41, 48-57), clearly suggests that the real-time financial data associated with the polygon that must be juxtaposed with the company logo, does not overcome the instant application, even though Marshall discloses the requirement of utilizing sophisticated output devices (column 1, line 17) such as Risberg et al's ticker display of Figure 1, and is further supplemented by Lauer et al's large screen .modular display. However Risberg et al, taken alone, disclosing the structure and method for a ticker display means does not meet limitations of the instant invention. Lauer et al , taken alone, disclosing a large screen display containing modules capable of displaying an entire "picture" does not meet the limitations of the instant application. Risberg et al may be combined with Marshall for at least the following reasons; changes in the stock price are reflected on the display when (column 1, lines 59-60), the program can support data feeds from at least Reuters Market Feed 2000/IDN (column 3, lines 17-19) because Marshall and Risberg et al clearly share similar functions as analogous art that is at least related to the real-time evaluation of financial data. However, taken together, Marshall and Risberg et al fail to meet the limitations of the instant invention. The modified Marshall when combined with the large screen display of Lauer et al which is at least similar to the

Art Unit: 2672

This Office Action Is Final

recited video wall display of applicant containing individual modules capable of displaying an entire picture across the entire display meets the recited claim limitations of the instant application. Therefore, it is clear to one at the time of the invention to combine the well-known large screen/modular display of Lauer et al with the ticker display means of Risberg et al and the company logo textured (juxtaposed) upon the polygon, whereas the polygon's dynamic orientation illustrates various financial/stock/market data of Marshall. Finally, the real-time evaluation of financial/stock/market data is the data that is associated with the polygon. In conclusion, it is more than conceivable that Risberg et al and Lauer et al may be combined with Marshall, and their combination meets the limitations of the instant invention.

(j) The remaining issues regarding claims 19, and 21-38 have already been addressed above;

#### Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2672

This Office Action Is Final

3. Claims 1-17 and 21-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall(U.S. Patent No.5,675,746) in view of Risberg et al (U.S. Patent No.5,339,392) and further in view of Lauer et al (US Patent No. 5,523,769). 4. Consider claims 1-38. Marshall discloses A system for dynamically displaying graphic symbols and value information for financial instruments comprising (column 3, lines 52-63): the means of a first and second input port to receive a feed containing identifiers and corresponding values of financial instruments (column 4, lines 28-39, column 8, lines 22-37); a filter to extract from the feed the identifiers and corresponding values of the financial instruments (column 4, lines 39-47, column 8, lines 1-5, column 12, lines 16-57); an input Processor comprising a memory to store the extracted financial instrument identifiers and corresponding values (column 4, lines 48-67, column 5, lines 39-60, column 12, lines 16-57) a database/memory that stores graphic symbols and that can be accessed by financial instrument identifiers to provide graphic symbols corresponding to the financial instrument identifiers in the feed (column 4, lines 48-67, column 5, lines 39-60, column 12, lines 16-57); display signals containing metaphors/polygons and corporate logos representing variations in shapes, colors, positions, animations and textures as different characteristics of the financial data (column 6, lines 22-47), company logos being juxtaposed the real-time textual data (column 4, lines 28-41, and column 6, lines 22-47) however, does not disclose display controller, or the means of a scrolling ticker display with current financial and market information, or routing switches. Risberg et al disclose display controller (column 1, lines 59-68), the means of a scrolling

Art Unit: 2672

This Office Action Is Final

ticker display with current financial and market information (Figure 3, elements 32, 34, 36, column 1, lines 59-68), the means of the routing switches (column 47, lines 47-52, column 48, lines 20-52). It would have been obvious to combine the display controlling means and scrolling ticker display means of Risberg et al with the financial information apparatus of Marshall because they share the at least similar functions of observing and evaluating financial information represented through dynamic polygons and corporate logos containing financial data. Specifically, Risberg et al teach tickers, i.e., streams of trade data for various stocks (column 1, lines 60-64). However, Risberg et al does not disclose the means of a video wall display. Lauer et al disclose the means of a video wall display with each module having its own display device and display means (Figures 1a, 1b, 3-6, column 3, line 57 through column 5, line 22). It would have been obvious to one skilled in the art at the time of the invention to utilize the teachings of the wall size display means of Lauer et al with the teachings of the virtual reality generator for use with financial information (column 1, lines 5-7) because Lauer et al's plural display means serves as a display output device of a large screen for the signals of Marshall that utilize displays driven in real time (column 1, lines 15-35).

5. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall (US Patent No. 5,675,746) in view of Risberg et al (US Patent No. 5,339,392) and further in view of Lauer et al (US Patent No. 5,523,769) as applied to claims 1-17 and 21-38 above, and further in view of Knee et al (US Patent No. 5,589,892).

Art Unit: 2672

This Office Action Is Final

6. Consider claims 18 and 20. The modified Marshall does not expressly teach the means of a bitmap and logo. However, Knee et al disclose means of a bitmap data corresponding to a (company) logo and a database of logo bitmaps (correspond to "...stored bitmaps for the screen configuration and the graphic symbol or logo displays stored in non-volatile memory 20 or alternatively, in DRAM 18, supplies it to a video display generator (VDG) 23..." - column 11, line 32-46, column 42, lines 45-51, column 45, line 34 to column 46, line 19). It would have been obvious to one at the time of the invention to utilize the bitmap and logo means of Knee et al with the modified device of Marshall because they at least share similar operating functions in displaying real-time data and utilizing data feed mechanisms, in addition to the means of a business data feed (column 45, lines 35-45). Utilization of Knee et al's teaching adds a greater flexibility for the consumer as they have the ability to not only evaluate current stock issues, but they may also take advantage of the electronic television program guide system.

#### Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

Art Unit: 2672

This Office Action Is Final

mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Blackman whose telephone number is (703) 305-0833. The examiner can normally be reached on Monday through Thursday from 8 a.m. to 4 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi, can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to:

(703) 308-6606, (for formal communications intended for entry) Or:

(703) 305-9731 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Application/Control Number: 08/736,143

Page 15

Art Unit: 2672

This Office Action Is Final

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



MATTHEW LUU  
PRIMARY EXAMINER



Patent Examiner

Anthony J. Blackman

5/20/2001